

What is claimed is:

- 1) A method of producing a carotenoid comprising cultivating a green microalga *Chlorella* in the dark in a medium having a C/N ratio of at least about 18.
- 2) The method of claim 1 in which the medium has a C/N ratio of at least about 18.
- 3) The method of claim 2 in which the *Chlorella* is *Chlorella zofingiensis*.
- 4) The method of claim 3 wherein the medium contains glucose.
- 5) The method of claim 2 further comprising adding a carbon source to a medium to achieve said C/N ratio.
- 6) The method of claim 5 in which the carbon source added is glucose.
- 7) The method of claim 1 in which the *Chlorella* is *Chlorella zofingiensis*.
- 8) The method of claim 7 wherein the medium contains glucose.
- 9) The method of claim 1 further comprising adding a carbon source to a medium to achieve said C/N ratio.
- 10) The method of claim 9 in which the carbon source added is glucose.
- 11) In a method of cultivating a green microalga *Chlorella* on media in a dark-heterotrophic culture, the improvement which comprises effecting the culture on a medium having a C/N ratio of at least about 18.
- 12) The method of claim 11, in which the C/N ratio is at least about 18.
- 13) The method of claim 12, in which the green microalga *Chlorella* is *Chlorella zofingiensis*.
- 14) The method of claim 13, in which the medium contains glucose.
- 15) The method of claim 11, in which the green microalga *Chlorella* is *Chlorella zofingiensis*.
- 16) The method of claim 15, in which the medium contains glucose.